

## REMARKS

Applicant has studied the Office Action dated September 22, 2004, and has made amendments to the claims. Claims 1-18 are pending. Claims 1, 13 and 18 are independent claims. Claims 1, 2 and 4-18 have been amended. No new matter has been entered. It is submitted that the application, as amended, is in condition for allowance. Reconsideration and reexamination are respectfully requested.

### Amendments to Drawings

An amendment has been made to the FIG. 2 in response to objections by the Examiner. No new matter has been added as the amendment has support in the application as originally filed.

### Amendments to the Specification

Amendments have been made to the specification at pages 1- 9 in response to objections by the Examiner. Additional amendments have been made to pages 1-9 to correct typographical errors and more clearly disclose the invention. No new matter has been added as the amendments have support in the specification and drawings as originally submitted.

### Objection to Drawings

The Examiner objected to FIGS. 2 and 4. Specifically, the Examiner asserted that "TYP EDUCATION CENTER" should be "ROBOT EDUCATION CENTER" and "VOICE AND MOTION" should be "VOICE, MOTION AND GESTURES" " in FIG. 2 and FIG. 4 does not show the information input means of page 7, lines 5-7.

With this paper, FIG. 2 has been amended as suggested by the Examiner. With respect to the objection to FIG. 4, the specification has been amended at page 7, line 7 to indicate that the information input means is "not shown." It is respectfully submitted that the grounds for objection have been overcome and it is respectfully requested that the Examiner withdraw the objections.

### Objections to Specification

The Examiner objected to the specification due to informalities. Specifically, the Examiner asserted the following:

IN THE DRAWINGS:

A Substitute drawing sheet is enclosed for FIG. 2 to replace the original drawing sheets filed with the application. No new matter has been added. Specifically, the following amendments have been made:

“TYP EDUCATION CENTER” is replaced by “ROBOT EDUCATION CENTER”

“LEARNING TYPE IN CYBER SPACE ...THE FORM OF MUSIC, VOICE AND MOTION”  
is replaced by “LEARNING TYPE IN CYBER SPACE ...THE FORM OF MUSIC, VOICE,  
MOTION AND GESTURES”

The title of the invention is not descriptive. The Examiner suggested "Toy Learning in a Cyber Community Apparata and Methods" as a new title.

"in offline" should be "offline" at line 10 of page 1, line 8 of page 2, line 8 of page 5, lines 8, 10, 13, 14 and 22 of page 6, and lines 2 and 23 of page 7.

"according to actions as" should be "from inputs such as" at page 1, line 19.

"chances can not ... not be induced" should be "opportunities are not provided and differing interests are not imported" at line 25 of page 1.

"in online" should be "offline" at line 15 of page 2, lines 14-15 of page 3, line 5 of page 4, lines 9 and 13-14 of page 5, and lines 4, 7 and 19 of page 9.

"data exchange information ... character and the" should be "cyber character exchange data with a " at lines 16-17 of page 3.

"audio information after buying the toy" should be "a microphone" at line 24 of page 4.

:house" should be "home" at line 22 of page 5.

"apparatuses" should be "apparata" at lines 12, 15, 20 and 22 of page 8.

With this paper, the title has been amended in a manner similar to that suggested by the Examiner and the specification has been amended at pages 1- 9 as suggested by the Examiner. It is respectfully submitted that the grounds for objection have been overcome and it is respectfully requested that the Examiner withdraw the objections.

#### Claim Objections

The Examiner objected to claims 1, 4-6, 8, 9, 11-13 and 18 due to informalities. Specifically, the Examiner asserted the following:

"by learning online" should be "from online learning" and "experience of the cyber character or experience of a user's learning" should be "a cyber character's experience or a user's learning experience" in claim 1.

"an operation" should be "operational" and "for providing an upgrade program provided" should be "provides an upgrade program received" in claim 4.

"a program of the cyber character" should be "a cyber character program" in claim 5.

"to contact with the cyber character of another" should be "for contacting cyber characters of other users" in claim 6.

"apparatuses" should be "apparata" in claim 8.

"motion of a level ... an audio information" should be "motion, learning or outputs audio information corresponding to the experience level of re cyber character in the cyber community" in claim 9.

“has a memory ... with another toys” should be “has memory for memorizing learned information and an input/output unit for exchanging information with other toys” in claim 11.

“a memory of another user” should be “another user’s memory” in claim 12.

“The toy learning method” should be “A learning method implemented in a computerized toy” in claim 13.

“The toy” should be “A method implemented in a computerized toy” in claim 18.

With this paper, claims 5, 6, 11, 12 and 18 have been amended as suggested by the Examiner and claims 1, 4, 8, 9 and 13 have been amended in a manner similar to that suggested by the Examiner. It is respectfully submitted that the grounds for objection have been overcome and it is respectfully requested that the Examiner withdraw the objections.

#### § 103 Rejections

Claim 1-4, 7, 9 and 11-13 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Danieli et al. (“Danieli” U.S. Pat. No. 5,977,951) in view of Gagin et al. (“Gagin” U.S. Pat. No. 5,630,757) in view of Yamaguchi et al. (“Yamaguchi” U.S. Pat. No. 6,314,412) in view of Kephart et al. (“Kephart” U.S. Pat. Appln. 2110/0042087) and in further view of Freeman et al. (“Freeman” U.S. Pat. No. 6,301,462). This rejection is respectfully traversed. The Applicant’s arguments with regard to the rejections will be discussed with respect to independent claim 1, as the Examiner’s assertions with regard to the rejection of claim 1 are similar to the Examiner’s assertions with regard to the rejection of claims 2-4, 7, 9 and 11-13.

#### Combination of the Danieli, Gagin, Yamaguchi, Kephart and Freeman References is Improper

The Examiner asserted in the Office action, at pages 6-7, that the Danieli invention modified by the teachings of Gagin, Yamaguchi, Kephart and Freeman renders the claimed invention obvious. Applicant respectfully disagrees with the Examiner’s reasoning and asserts that the combination of references is not proper.

First, it is respectfully submitted that the Yamaguchi, Kephart and Freeman references are directed to non-analogous art with respect to Danieli and Gagin references. It is respectfully noted that the criteria for determining whether prior art is analogous is twofold. First, one must determine whether the art is from the same field of endeavor, regardless of the problem addressed. Second, if the reference is not within the field of the inventor’s endeavor, one must determine whether the reference still is reasonably pertinent to the particular problem with which the inventor is involved. In re Deminski, 796 F.2d 436, 442, 230 USPQ 313, 315 (Fed. Cir. 1986); In re Wood, 599 F.2d 1032, 1036, 202 USPQ 171, 174 (CCPA 1979).

It is respectfully submitted that the Danieli invention is directed to a "remote control character that interacts with content displayed on a display device" and a "substitute animated character on the display device." Danieli at col. 1, ll. 21-25. It is further respectfully submitted that Gagin is directed to "multi-user game playing via a cable television cable networks" and a "real-time operating system which performs multi-threaded processing of motile data requests and multiple data response in a real time game playing communication network and system." Gagin at col. 1, ll. 8-14.

On the other hand, it is respectfully submitted that the Yamaguchi invention is directed to an "evolutionary control system to construct characteristics which can satisfy plural users," where the "plural users" are consumers for whom retail items "such as vehicles and electrical appliances" are designed. Yamaguchi at col. ll. 18-20 and 48-50. It is further respectfully submitted that the Kephart invention is directed to "software applications that manage electronic documents such as electronic mail, articles ..., web pages or ... images, video clips and audio clips." Kephart at par. 0001. Moreover, it is respectfully submitted that Freeman is directed to a "software learning engine offered online via a network" in which "an educational forum ... provides interactive lessons ... such that a learner can participate." Freeman at col. 1, ll. 13-14 and 41-43.

It is respectfully submitted that the "remote control character" and "substitute animated character" of Danieli, the "multi-user game playing" and "real-time operating system ... in a real time game playing communication network and system" of Gagin, as well as the "computerized toy" recited in the claims of the present application, are not within the same field of endeavor as the "evolutionary control system ... which can satisfy plural users" of "vehicles and electrical appliances" described in Yamaguchi, the "software applications that manage electronic documents" described in Kephart, and the "software learning engine offered online via a network" for "learners" described in Freeman. It is respectfully asserted that one of ordinary skill in the art of remote control characters, animated characters, real-time operating systems for game playing, and computerized toys would not look to completely different fields of endeavor, such as evolutionary control systems for vehicles and electrical appliances, software applications to manage electronic documents, and software for online learning, in order to find ways to improve their inventions.

Furthermore, it is respectfully submitted that the Yamaguchi, Kephart and Freeman references are not at all pertinent to the particular problem to which the present invention is directed nor the particular problems to which the Danieli and Gagin references are directed.

It is respectfully submitted that the present invention is directed to the disadvantages of a conventional computerized "intelligent toy" that "can grow only by individual learning without a comparison means with other users." See present specification at page 1, line 8 to page 2, line 2. It is further respectfully submitted that Danieli is directed to the disadvantages of a conventional "educational computer product for young children" that utilizes "physical characters" such as "plush toys" and which "prevents the program from being used without the physical character." Danieli at col. 1, ll. 29-64. Moreover, it is respectfully submitted that Gagin is directed to the disadvantages of a conventional "multiple user game playing network" that "lacks the ability to service a large number of subscribers distributed over a large area using limited bandwidth and within an unreliable communication environment." Gagin at col. 1, ll. 41-51.

On the other hand, it is respectfully submitted that Yamaguchi is directed to the disadvantage of a conventional system for selecting "imaginary users" when designing "a control system or control characteristics of a subject, such as vehicles and electrical appliances" in that "it is troublesome for the user to check the characteristics of the product before purchase" and "the range of users is limited and depends on the operational characteristics." It is further respectfully submitted that Kephart is directed to the disadvantage of a conventional system to "organize electronic documents" in that "continual monitoring of the user's actions or excessive amounts of computation" are required, "normal additions, deletions and re-categorization of documents ... require unnecessary weight recomputation," and a substantial amount of time is required "to train the automated method to categorize documents accurately." Kephart at par. 0017-0019. Moreover, it is respectfully submitted that Freeman is directed to the disadvantage of a conventional method for "learning ... online via a network" in that "[e]xisting methods generally require that a learner become self taught with periodic assessments by the distant learning institution."

It is further respectfully asserted that the Yamaguchi, Kephart and Freeman references are directed to problems in their respective fields that are completely unrelated and not reasonably pertinent to the particular problems to which the present invention, Danieli invention and Gagin invention are directed and, therefore, that one of ordinary skill seeking to address the particular problems to which the present invention, Danieli invention and Gagin invention are directed would not look to the teachings of the Yamaguchi, Kephart and Freeman references.

Since the Examiner has failed to satisfy either of the In re Deminski criteria for determining whether prior art is analogous, it is respectfully requested that the rejection be withdrawn.

Second, it is respectfully submitted that the Examiner has not demonstrated the required motivation to combine the Danieli, Gagin, Yamaguchi, Kephart and Freeman references. It is well-settled that a reference must provide some motivation or reason for one skilled in the art (working without the benefit of the applicants' specification) to make the necessary changes in the disclosed device. The mere fact that a reference may be modified in the direction of the claimed invention does not make the modification obvious unless the reference expressly or impliedly teaches or suggests the desirability of the modification. In re Gordon, 221 USPQ 1125, 1127 (Fed. Cir. 1984); Ex parte Clapp, 227 USPQ 972, 973 (Bd. App. 1985); Ex parte Chicago Rawhide Mfg. Co., 223 USPQ 351, 353 (Bd. App. 1984). The Federal circuit has consistently held that hindsight reconstruction does not constitute a prima facie case of obviousness under 35 U.S.C. § 103. In re Geiger, 2 USPQ2d 1276 (Fed Cir. 1987).

It is respectfully noted that the Examiner, at page 8 of the Office action, asserts that "portions of the claimed apparatus would have been a highly desirable feature in this art." It is further respectfully noted that the Examiner further asserts that the "portions of the claimed apparatus" could be utilized to perform functions performed by the Gagin ("[p]roviding game playing services over existing networks that are inherently noisy and unreliable"), Yamaguchi ([o]btaining control characteristics suitable to the user"), Kephart ("[a]llowing newly instantiated agent to learn from more established ones") and Freeman ("[a]ccomplishing the learning goal in a way most productive to the learner") inventions.

It is respectfully submitted that the Examiner has not stated any motivation found in the cited references themselves to modify the Danieli invention by the teachings of Gagin, Yamaguchi, Kephart and Freeman as required by the courts in Gordon, Clapp, and Chicago Rawhide, but rather has asserted only that the apparatus of the present invention could be used to accomplish some of the functions of the Gagin, Yamaguchi, Kephart and Freeman inventions. It is further respectfully submitted that portions of the present invention being desirable for performing some of the functions of the cited references does not provide the proper motivation to combine the cited references. Moreover, it is respectfully asserted that the Examiner is relying on impermissible hindsight in contradiction of the guidelines established by the courts in Gordon, Clapp, Chicago Rawhide ("working without the benefit of the applicants' specification"), and In re Geiger by relying on the teachings of the present specification ("portions of the claimed apparatus") for the motivation to modify the Danieli invention.

It is respectfully asserted that the Danieli, Gagin, Yamaguchi, Kephart and Freeman references fail to meet the basic requirement for a finding of obviousness since there is no suggestion in the cited references of modifying the devices disclosed therein in the direction of

the present invention, nor is there any suggestion whatsoever of the desirability of such modification. Therefore, it is further respectfully asserted that one of ordinary skill in the art would have had no motivation to modify the Danieli invention to provide the invention recited in claim 1 and it is respectfully requested that the rejection be withdrawn.

#### Prima Facie Obviousness

Although the Applicant believes the combination of references cited by the Examiner is improper, it is respectfully submitted that, even if the combination of cited references were asserted against claim 1, prima facie obviousness is not established.

It is respectfully noted that the Federal Circuit has provided that an Examiner must establish a case of prima facie obviousness. Otherwise the rejection is incorrect and must be overturned. As the court recently stated in In re Rijkaert, 28 USPQ2d 1955, 1956 (Fed. Cir. 1993):

“In rejecting claims under 35 U.S.C. § 103, the examiner bears the initial burden of presenting a prima facie case of obviousness. Only if that burden is met, does the burden of coming forward with evidence or argument shift to the applicant. ‘A prima facie case of obviousness is established when the teachings from the prior art itself would appear to have suggested the claimed subject matter to a person of ordinary skill in the art.’ If the examiner fails to establish a prima facie case, the rejection is improper and will be overturned.” (citations omitted.)

It is respectfully noted that the Examiner indicates that Danieli “doesn’t explicitly teach [the elements recited in claim 1],” but rather asserts only that Danieli teaches “a cyber character **for learning online.**” See Office action at page 7 (emphasis added). It is further respectfully noted that claim 1 recites a cyber character which grows by learning online as opposed to a cyber character “for learning online.”

It is respectfully submitted that while Danieli discloses “a physical character 60” as part of “an interactive learning setting,” the “physical character 60” is a conduit for learning by the user and the “physical character 60” does not grow by learning online, as recited in claim 1. Danieli at col. 6, ll. 22-26 and FIG. 1. Therefore, it is respectfully asserted that Danieli does not even disclose a cyber character as recited by claim 1.

It is respectfully noted that the Examiner asserts, at page 7 of the Office action, that Gagin teaches “a cyber community.” It is respectfully submitted that the “cyber community” taught by Gagin does not have a cyber character which grows by learning online, as recited by claim 1, but rather has a “database server” that “shares information regarding the users” (i.e.



humans). Gagin at col. 6, ll. 13-17. Therefore, it is respectfully asserted that Gagin does not disclose a cyber community as recited by claim 1.

It is respectfully noted that the Examiner asserts, at page 7 of the Office action, that Yamaguchi teaches "learning" and "receiving experience of a user's learning." It is respectfully submitted that Yamaguchi does not teach "learning" by a cyber character, as recited in claim 1, but rather teaches the selection of "an [imaginary] individual, which has the characteristics satisfying the user." It is further respectfully submitted that Yamaguchi does not teach a toy receiving a user's learning experience, as recited by claim 1, but rather that a "user selects an individual which the user wants to use for a trial run" in order to evaluate a product. Yamaguchi at col. 8, ll. 53-65. Therefore, it is respectfully asserted that Yamaguchi does not disclose a learning or receiving a user's learning experience as recited by claim 1.

It is respectfully noted that the Examiner asserts, at pages 7-8 of the Office action, that Kephart teaches "growing in experience proportional to learning." It is further respectfully noted that claim 1 does not recite "growing in experience proportional to learning" but rather recites a cyber character that grows by learning. It is respectfully submitted that Kephart teaches a "personalized e-mail agent" (i.e. a human) that "grows in experience," rather than a cyber character that grows by learning. Kephart at par. 0009. Therefore, it is respectfully asserted that Kephart does not disclose a cyber character that grows by learning as recited by claim 1.

It is respectfully noted that the Examiner, at page 8 of the Office action, asserts that Freeman teaches "a community ... which grows ... by learning online" and "receiving experience of a user's learning." It is respectfully submitted that the "community" taught by Freeman does not have a cyber character which grows by learning online and a toy receiving a user's learning experience, as recited by claim 1, but rather teaches that "learners" (i.e. humans) acquire skills online. Freeman at col. 5, line 64 to col. 6, line 10 and col. 8, ll. 59-67. Therefore, it is respectfully asserted Freeman does not disclose a cyber community or a toy as recited by claim 1.

In view of the above arguments, it is respectfully asserted that the Examiner has failed to establish a prima facie case of obviousness and, therefore, independent claim 1 is allowable over the cited references as are claims 2-4, 7, 9, 11 and 12, which depend from claim 1. It is further respectfully asserted that the above arguments are applicable to independent claim 13 and, therefore, independent claim 13 also is allowable over the cited references.

Claim 5 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Danieli in view of Gagin in view of Yamaguchi in view of Kephart in view of Freeman in view of Baer (U.S. Pat. No. 4,846,693) in view of Berman (U.S. Pat. No. 4,373,918) in view of Murphy (U.S. Pat.

No. 6,564,380) and in further view of Sterling (U.S. Pat. No. 6,466,975). This rejection is respectfully traversed.

As was previously respectfully asserted, the combination of the Danieli, Gagin, Yamaguchi, Kephart and Freeman references is improper and, even if the references are asserted, independent claim 1 is allowable over the cited references. It is respectfully submitted that Baer, Berman, Murphy and Sterling fail to overcome the deficiencies of the Danieli, Gagin, Yamaguchi, Kephart and Freeman references.

Therefore, it is respectfully asserted that independent claim 1 is allowable over the cited references. It is further respectfully asserted that claim 5, which depends from claim 1, also is allowable over the cited references.

Claim 6 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Danieli in view of Gagin in view of Yamaguchi in view of Kephart in view of Freeman in view of Anderson et al. ("A continuous media I/O server and its synchronization mechanism"). This rejection is respectfully traversed.

As was previously respectfully asserted, the combination of the Danieli, Gagin, Yamaguchi, Kephart and Freeman references is improper and, even if the references are asserted, independent claim 1 is allowable over the cited references. It is respectfully submitted that Anderson et al. fails to overcome the deficiencies of the Danieli, Gagin, Yamaguchi, Kephart and Freeman references.

Therefore, it is respectfully asserted that independent claim 1 is allowable over the cited references. It is further respectfully asserted that claim 6, which depends from claim 1, also is allowable over the cited references.

Claims 8 and 14-16 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Danieli in view of Gagin in view of Yamaguchi in view of Kephart in view of Wu (U.S. Pat. No. 6,275,575). This rejection is respectfully traversed.

As was previously respectfully asserted, the combination of the Danieli, Gagin, Yamaguchi, and Kephart references is improper and, even if the references are asserted, independent claims 1 and 13 are allowable over the cited references. It is respectfully submitted that Wu fails to overcome the deficiencies of the Danieli, Gagin, Yamaguchi, and Kephart references.

Therefore, it is respectfully asserted that independent claims 1 and 13 are allowable over the cited references. It is further respectfully asserted that claim 8, which depends from claim 1, and claims 14-16, which depend from claim 13, also are allowable over the cited references.

Claim 10 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Danieli in view of Gagin in view of Yamaguchi in view of Kephart in view of Freeman and in further view of Zutavern et al. "Optically-activated GaAs switches for compact accelerators and short pulse sensors"). This rejection is respectfully traversed.

As was previously respectfully asserted, the combination of the Danieli, Gagin, Yamaguchi, Kephart and Freeman references is improper and, even if the references are asserted, independent claim 1 is allowable over the cited references. It is respectfully submitted that Zutavern et al. fails to overcome the deficiencies of the Danieli, Gagin, Yamaguchi, Kephart and Freeman references.

Therefore, it is respectfully asserted that independent claim 1 is allowable over the cited references. It is further respectfully asserted that claim 10, which depends from claim 1, also is allowable over the cited references.

Claim 17 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Danieli in view of Gagin in view of Yamaguchi in view of Kephart in view of Freeman and in further view of Jigour (U.S. Pat. No. 5,877,975). This rejection is respectfully traversed.

As was previously respectfully asserted, the combination of the Danieli, Gagin, Yamaguchi, Kephart and Freeman references is improper and, even if the references are asserted, independent claim 13 is allowable over the cited references. It is respectfully submitted that Jigour et al. fails to overcome the deficiencies of the Danieli, Gagin, Yamaguchi, Kephart and Freeman references.

Therefore, it is respectfully asserted that independent claim 13 is allowable over the cited references. It is further respectfully asserted that claim 17, which depends from claim 13, also is allowable over the cited references.

Claim 18 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Danieli in view of Gagin in view of Yamaguchi in view of Kephart in view of Freeman in view of Hill (U.S. Pat. No. 4,802,278) and in further view of Brelis (U.S. Pat. No. 6,544,040). This rejection is respectfully traversed.

It is respectfully submitted that the arguments presented with regard to the rejection of independent claim 1 also are applicable to independent claim 18 and, therefore, independent claim 18 is allowable over Danieli, Gagin, Yamaguchi, Kephart and Freeman. It is respectfully submitted that Hill and Brelis fail to overcome the deficiencies of the Danieli, Gagin, Yamaguchi, Kephart and Freeman references.

Therefore, it is respectfully asserted that independent claim 18 is allowable over the cited references.

### CONCLUSION

In light of the above remarks, Applicant submits that claims 1-18 of the present application are in condition for allowance. Reexamination and reconsideration of the application, as amended, are requested.

The Examiner has cited multiple references as being made of record and not relied upon. Applicant has studied the references and believes they neither anticipate nor render obvious the present invention either alone or in combination.

No amendment made was related to the statutory requirements of patentability unless expressly stated herein; and no amendment made was for the purpose of narrowing the scope of any claim, unless Applicant has argued herein that such amendment was made to distinguish over a particular reference or combination of references.

If for any reason the Examiner finds the application other than in condition for allowance, the Examiner is requested to call the undersigned attorney at the Los Angeles, California telephone number (213) 623-2221 to discuss the steps necessary for placing the application in condition for allowance.

Respectfully submitted,

LEE, HONG, DEGERMAN, KANG & SCHMADEKA

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Encl: Substitute FIG. 2

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